

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREE T - MS-32
SACRAMENTO, CA 95814-5512

April 5, 2002

Mr. Colin Taylor
Sacramento Municipal Utility District
PO Box 15830
Sacramento CA 95852-1830

Re: COSUMNES POWER PLANT (01-AFC-19) - DATA REQUESTS, SET 3 (#184-253)

Dear Mr. Taylor:

Over the past few months, Energy Commission staff has received a supplement to the application for certification and a series of responses to staff's data requests that were issued in December and January. While the majority of responses adequately answered staff's data requests, some did not. Staff believes that, to date, no response or an inadequate response was provided for the air quality, biological resource, cultural resource, waste management, and water and soils resource data requests summarized in Table 1 (attached). Table 1 also indicates the status of past data requests where additional information is needed. Staff continues to believe that adequate responses to these requests are needed to complete its analysis. Inadequate responses may result in staff filing a motion with the Committee to compel responses.

In addition, based on review of Supplement A (submitted on March 15, 2002) and the responses to data requests received to date, staff has determined that additional information is needed. Enclosed are additional data requests in the areas of air quality, biological resources, cultural resources, land use, noise, project description, traffic and transportation, waste management, and water and soil resources. Please provide written responses to the data requests on or before May 6, 2002. Without adequate responses to the enclosed data requests and the data requests listed in Table 1, it would be difficult for staff to complete its assessment of the project, including CEQA impacts and mitigation, and compliance with relevant laws, ordinances, regulations and standards (LORS).

To eliminate confusion when referencing data requests, the enclosed data requests are numbered as a continuation of the data requests submitted on January 4, 2002, and begin with Data Request #184.

If you are unable to provide the information requested, need additional time to provide the information, or object to providing it, then please send a written notice to both the Committee and me within 10 days of receipt of this notice. The notification must contain the reasons for not providing the information, the need for additional time, and the

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grounds for any objections (see Title 20, California Code of Regulations, section 1716 (f)).

If you have any questions regarding the enclosed data requests, please contact me at (916) 654-3929 or at kchew@energy.state.ca.us.

Sincerely,

-S-

Kristy Chew
Energy Facility Siting Project Manager

Enclosure – Data Requests #184-253

Table 1. Summary of Data Responses that Staff Believes that No Response or an Inadequate Response was Provided

Data Request	No Response	Partial Response	Contested Request
Bio - #18		✓ - Wetland delineation map associated with report is missing (see Data Request #203).	
Bio - #19		✓ - Map of wetland areas along linear route (Set 1H), although no wetland delineation report was provided (see Data Requests #206 & 207).	
Bio - #20		✓ - Map of wetland areas along linear route provided (Set 1H), although not of wetlands within a 250' radius of the proposed alignment (see Data Requests #206 & 207).	
Bio - #22	✓ - Set 1G states that a revegetation plan would be submitted on March 28, 2002. None received to date.		
Bio - #30		✓ - Set 1H states that California tiger salamander surveys will be completed in April 2002.	
Bio - #31		✓ - Set 1G states that burrowing owl winter surveys were completed. Spring surveys not completed yet (see Data Request #204).	
Cultural - #35		✓ - Set 1C states EBASCO 92 will be submitted (see Data Request #208).	
Water & Soil - #118		✓ - draft SWPPP is not applicable to the revised	

Table 1. Summary of Data Responses that Staff Believes that No Response or an Inadequate Response was Provided

Data Request	No Response	Partial Response	Contested Request
		site layout (see Data Request #244).	
Water & Soil - #119		✓ - draft SWPPP is not applicable to the revised site layout (see Data Request #244).	
Water & Soil - #120		✓ - draft SWPPP is not applicable to the revised site layout (see Data Request #244).	
Water & Soil - #121		✓ - draft SWPPP is not applicable to the revised site layout (see Data Request #244).	
Water & Soil - #122		✓ - draft SWPPP is not applicable to the revised site layout (see Data Request #244).	
Water & Soil - #123		✓ - Information about other area creeks/receiving waters not provided (see Data Request #236).	
Water & Soil - #124		✓ - Information about other area creeks/receiving waters not provided (see Data Request #236).	
Water & Soil - #133		✓ - Storage/outflow characteristics information of basin not provided (see Data Request #245).	
Water & Soil - #134		✓ - Storage/outflow characteristics information of basin not provided (see Data Request #245).	
Water & Soil - #135		✓ - Rationale not provided.	
Water & Soil - #136	✓ - Analysis moved up		✓

Table 1. Summary of Data Responses that Staff Believes that No Response or an Inadequate Response was Provided

Data Request	No Response	Partial Response	Contested Request
	in "queue."		
Water & Soil - #138	✓ - Analysis moved up in "queue."		✓
Water & Soil - #143		✓ - Need hydrologic data for tributaries to Clay Creek (see Data Request #143 – 146).	
Water & Soil - #144		✓ - Need hydrologic data for tributaries to Clay Creek (see Data Request #143 – 146).	
Water & Soil - #145		✓ - Need hydrologic data for tributaries to Clay Creek (see Data Request #143 – 146).	
Water & Soil - #146		✓ - Need hydrologic data for tributaries to Clay Creek (see Data Request #143 – 146).	
Water & Soil - #147		✓ - Applications to other agencies in process (see Data Request #251).	
Water & Soil - #148		✓ - Applications to other agencies in process (see Data Request #251).	
Water & Soil - #155		✓ - Response omits specifics of wash water constituents and disposal (see Data Request #240).	
Air Quality - #166	✓ - Response refers to other projects with SCR and dismisses staff's need for SCR data for this project.		
Waste Mgmt - #183		✓ - Submitted Phase I is incomplete nor does it include linears (see Data Request #229).	

COSUMNES POWER PLANT (01-AFC-19)
DATA REQUESTS, SET 3

Technical Area: Air Quality

Author: Tuan Ngo, P.E.

BACKGROUND

It has come to staff's attention that SMUD is in the process of negotiating an offset package with the Sacramento Metropolitan Air Quality Management District (SMAQMD) and other air districts, which involves the use of modeling analysis to derive a ratio for inter-pollutant trade-offs. Because of the complexity of the modeling, and to facilitate staff's air quality analysis of the project, staff should be involved in the discussions with other regulatory agencies.

DATA REQUEST

184. Please provide all correspondence, including those by means of electronic communications, with all air districts, the ARB, and the EPA that are related to the securing and use of offsets, and the development of the modeling analysis to derive the inter-pollutant offset ratio.
185. Please provide any additional information regarding offsets that were not discussed in the application for certification (AFC), but are being considered by the applicant.

COSUMNES POWER PLANT (01-AFC-19)
DATA REQUESTS, SET 3

Technical Area: Biological Resources

Authors: Melinda Dorin and Rick York

BACKGROUND

In the AFC page 8.2-15, in the Impacts to Trees section it states that impacts to trees are unlikely, but if it becomes necessary to remove tree(s) then the loss will be mitigated in accordance with the appropriate requirements specified by the County Tree Coordinator. However, Sacramento County has a Tree Preservation Ordinance (SCC 480 §1, 1981) to protect heritage trees.

DATA REQUEST

186. Provide a figure that shows where heritage trees are located along the proposed pipeline that may be impacted by construction activities (e.g., trenching, boring, heavy equipment maneuvering with a tree's dripline).
187. If any heritage trees are identified along the proposed pipeline, discuss measures that will be taken to mitigate any impacts.

BACKGROUND

Table 8.14-8 in the AFC lists all of the potential wetland areas that will be crossed by the proposed gas pipeline. The table includes information on the type of wetland area, and how and when it will be crossed. Figures 6.1-1 through 6.1-6 from the AFC depict the proposed gas pipeline route and what methods will be used to lay the pipe. Staff needs more information on the crossings to analyze potential impacts to Biological Resources.

DATA REQUESTS

188. Provide an updated table that includes all of the following: any changes to the methods used to cross wetland areas from that presented in the AFC, the amount of habitat disturbance (acreage) at each crossing, bore length where appropriate, and the anticipated distance from the water's edge to the bore site.
189. Provide updated Figures 6.1-1 through 6.1-6 that depict where the laydown areas will be located along the gas pipeline.

BACKGROUND

The proposed gas pipeline will cross the Cosumnes River Preserve owned and managed by The Nature Conservancy and land owned by the California Department of Fish and Game (CDFG).

DATA REQUEST

190. Provide a letter from the Cosumnes River Preserve Manager that states that they have been consulted about the alignment of the gas pipeline and outlines any

COSUMNES POWER PLANT (01-AFC-19)
DATA REQUESTS, SET 3

potential outstanding biological issues on the Cosumnes River Preserve that need to be addressed.

191. Provide a letter from the CDFG that states that they have been consulted about the alignment of the gas pipeline through CDFG property and outlines any potential outstanding biological issues on CDFG lands.

BACKGROUND

The proposed gas pipeline crosses a significant created vernal pool mitigation bank along the railroad tracks at approximately mile marker 3.0 as shown in Table 8.14-8. Staff needs more information on the compatibility of construction activities within a vernal pool mitigation bank. Staff is concerned that construction within a mitigation bank would significantly harm biological resources.

DATA REQUEST

192. Provide information on whether construction activities are legally compatible with the mitigation bank. Provide information on what types of conservation easements are on the property, if applicable.
193. Please discuss the feasibility of alternative routes to avoid the mitigation bank.

BACKGROUND

AFC Supplement A, docketed March 15, 2002, Section 3.2 Biological Resources states that the addition of the compressor and valve stations will have minor temporary impacts to biological resources. No information is provided on what those impacts may be.

DATA REQUEST

194. Identify what the potential impacts are from the additions of the gas pipeline compressor and valve stations, how long construction will take, and what species may be affected.
195. Provide a figure with a scale of 1"=500' that shows the compressor and valve stations, and the sensitive biological resources out to 1,000 feet from the proposed sites.

BACKGROUND

During the bus tour of the gas pipeline route on January 23, 2002, sandhill cranes were identified on the north side of the Cosumnes River near the proposed gas pipeline bore site. The sandhill crane was not identified in Table 8.2-3B, included with the response to Data Request 26, as a state threatened species potentially occurring within 1 mile of the CPP Project area.

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DATA REQUEST

196. Please identify how impacts to sandhill cranes will be avoided during the gas pipeline construction.

BACKGROUND

In Section 5.3 (Transmission Interconnection) of the AFC it states that 0.4 miles of transmission line will be constructed to tie in to the existing Rancho Seco Plant switchyard. Figure 5.3-1 depicts the proposed transmission line route on a map with a 1"= 2000' scale. Staff needs more detailed information to address potential impacts to biological resources.

DATA REQUESTS

197. Provide a new figure at a scale of 1"=500' that depicts the proposed transmission line tower footings, and sensitive species and habitats at a radius of 1,000 feet from the tower footings.
198. Provide information on construction impacts from the transmission line towers. Calculate and provide the amount of (acreage) temporary and permanent disturbance.
199. Will a road be maintained along the transmission line route to do routine maintenance? If so, depict the location of the road on the figure.

BACKGROUND

At the Data Response Workshop on February 24, 2002 there was a discussion between staff and EJ Koford about the response to Data Request 8 and the anticipated schedule for the federal lead agency to initiate consultation. Table BR-8 shows the anticipated consultation schedule as well as two potential lead agencies. It was stated during the Data Response Workshop that the U.S. Army Corps of Engineers (ACOE) will act as the federal lead agency for the project, but that has not been confirmed.

DATA REQUESTS

200. Provide a letter from the ACOE that they will act as lead agency for the Cosumnes Power Plant Project and consult with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS).
201. Provide a new proposed schedule that identifies when the Biological Assessment will be submitted to the USFWS and NMFS, and when CDFG permits (2081 and 1601) and Regional Water Quality Control Board 401 certification applications will be submitted.

BACKGROUND

A wetland delineation is being completed for the project site and all associated facilities. There is a potential for several rare plants to be present at the site and along the gas

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pipeline route. The Special-Status Biological Resources Survey for the Twin Cities Power Plant Project, July 2001 submitted as Attachment BR-17 outlines rare plant surveys completed within the vicinity of the power plant site. Rare plant surveys should also be conducted along the gas pipeline in areas that are not heavily disturbed.

DATA REQUEST

202. Provide rare plant survey results for areas along the gas pipeline in areas where there is potential for rare plants to be located. As an example, surveys are not necessary where the proposed gas pipeline may go through a vineyard.

BACKGROUND

A Wetland Delineation Report for the Proposed South Sacramento Power Plant at Rancho Seco, Sacramento County, California by Davis Environmental Consulting was submitted with the Response to Data Request 18 on February 4, 2002. The Figure Exhibit 1 accompanying the report was not included.

DATA REQUEST

203. Please provide a copy of the Figure Exhibit 1 from the Davis Environmental Consulting report.

BACKGROUND

Data Request 31 asked for burrowing owl surveys to be conducted for the project site and associated linears. The response provided March 19, 2002 states that burrowing owl surveys are being done along with the wetland delineation. The Burrowing Owl Consortium recommends that winter surveys (December 1 – January 31) and nesting season surveys (April 15 – July 15) for burrowing owls should be completed in order to assess potential impacts as accurately as possible (Burrowing Owl Survey Protocol and Mitigation Guidelines, 1993). Staff needs to confirm that nesting season surveys for burrowing owls will be completed so staff has sufficient information to complete its analysis.

DATA REQUEST

204. Provide results for burrowing owl nesting season surveys (field survey dates, names and qualifications of biologists) and include the locations of occupied burrows on a figure with the scale 1"=500'.

BACKGROUND

In the AFC Section 8.2, Biological Resources, habitat compensation as mitigation for potential impacts is not addressed. Due to temporary and permanent impacts from the project, staff thinks it is likely that habitat compensation will be required.

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DATA REQUEST

205. Provide information on where habitat compensation can be acquired in Sacramento County, and what entity would receive the funds.

BACKGROUND

Data Response 20 (Set 1H) provided figures depicting wetland areas located within 125 feet of the 26-mile natural gas alignment and a very general summary of the wetlands.

Data Requests 19 and 20 requested a figure (with a scale of 1"=100') outlining the vernal pools and where jurisdictional wetlands occur within 250 feet of the linear facilities and a table that estimates the amount of wetland habitat that may be directly or indirectly impacted with a 250-foot buffer surrounding vernal pools, respectively.

DATA REQUEST

206. Please provide the wetland delineation surveys that were completed for the alignment. Include a figure with the delineation points mapped, the wetland delineation sheets that were completed, a timeline for when the wetland delineation will be submitted to the Army Corps of Engineers for jurisdictional wetland classification, and a discussion of when consultation with the USFWS is expected.
207. Please provide a figure and table that satisfies the requests of Data Requests 19 and 20.

COSUMNES POWER PLANT (01-AFC-19)
DATA REQUESTS, SET 3

Technical Area: Cultural Resources

Author: Judy McKeehan and Dorothy Torres

BACKGROUND

The Confidential Appendix 8.3C does not include a complete list of technical reports for the resources identified for the proposed gas line alignment. Data Response #35 (Set 1C) indicates that a copy of the EBASCO 92 report was requested from the California Historical Resources Information System (CHRIS) and would be provided when it was received. To date, Energy Commission staff has not received the EBASCO 92 report.

DATA REQUEST

208. Please provide a copy of the EBASCO 92 report.

BACKGROUND

The Confidential Supplement to Data Response #39 states that on February 22, 2002, CH2M HILL archaeologists relocated the boundaries of CA-SAC-93.

DATA REQUEST

209. Please provide the names and qualifications of the persons that conducted the re-survey of CA-SAC-93.

BACKGROUND

Maps 1, 3, 4, and 6 provided as part of Appendix 8.3 DR indicate that several areas along the natural gas pipeline alignment were not surveyed; along the Union Pacific Railroad, north of Elliott Ranch (Map 1); south of Core Road to Eschinger Road (Map 3); areas covered with alfalfa crop (Map 4); and the south side of the alignment from Laguna Road to the Clay Station Road junction (Map 6).

DATA REQUEST

210. When will these areas be surveyed? Please provide the survey results.

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DATA REQUESTS, SET 3

Technical Area: Land Use
Author: James Adams

BACKGROUND

On page 8.4-5 of the AFC, under section 8.4.2.2.1 Cosumnes Power Plant Site it states that the proposed project is to be located on two parcels identified as Assessor's Parcel Numbers 140-0050-010 and -008 totaling 30 acres.

Assessor's parcels are not legal land division parcels. Assessor's parcels are generated by a County Assessor's Office as a means of placing a value on property or portion thereof for the purpose of property taxation in accordance to the California Revenue and Taxation Code. The County Assessor does not divide or create parcels of land in conducting this process. The assignment of an Assessor's Parcel Number to a property provides a convenient and quick location reference for the County Assessor to identify a property on the property assessment roll within a County. Legal land division parcels are established in accordance to the procedures and the requirements set forth in the State Subdivision Map Act (Government Code section 66410 – 66499.58).

The status and number of legal parcels of record for this project are not provided in the AFC.

DATA REQUEST

211. The power generation facility is to be contained on a 30-acre portion of the 2,400-acre (approximate) property. Is the proposed power plant to be constructed on a single legal parcel of land?
212. Please explain whether the applicant is going to be required to file a parcel map with the County of Sacramento to create the parcel(s).
213. If not, explain the land division procedure used to create the parcel(s) totaling 30 acres.
214. Does the applicant have two legal parcels or some other number of parcels?
215. Provide a copy of the recorded final map, lot line adjustment map, or Certificate of Compliance for the property(ies).

BACKGROUND

The California Department of Conservation, Office of Land Conservation has prepared a rating system for land resources called the California Agricultural Land Evaluation and Site Assessment (LESA). The use of LESA criteria provides a methodology for assessing the potential environmental impact of state and local projects on agricultural lands and its conversion. LESA provides an approach for rating the relative quality of land resources based upon specific measurable features. The California LESA is composed of six different factors. Two Land Evaluation factors based upon measures of soil resource quality and four Site

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Assessment factors that provide measures of a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands.

The final scoring is based on a scale of 100 points, with a given project being capable of deriving a maximum of 50 points from the Land Evaluation factors and 50 points from the Site Assessment factors. The LESA analysis provided by the applicant identifies the score for the project's conversion of 34 acres from an agricultural use to a nonagricultural use is 59.8 points. Using the California LESA Model Scoring Threshold: 0-39 points – the conversion is not considered significant; 40 to 59 points - the conversion is considered significant. Both the Land Evaluation and the Site Assessment sub-scores are each greater than 20 points. This LESA score was determined by staff to be a significant environmental affect for the project's agricultural land conversion and mitigation is required.

DATA REQUEST

216. Please provide an agricultural loss mitigation plan.

BACKGROUND

In the applicant's data response to staff's Data Request Set 1A, it is noted that the second phase gas compressor station will be located at the PG&E lines 400 and 401 inter-tie at 27700 County Road 29 in the City of Winters. However, this location appears to be approximately four miles north of the City and is in unincorporated land in Yolo County.

DATA REQUEST

217. Please provide the land use and zoning designations, existing and surrounding land uses, and any policies or guidelines related to the Yolo County General Plan and / or Zoning Ordinance.

COSUMNES POWER PLANT (01-AFC-19)
DATA REQUESTS, SET 3

Technical Area: Noise
Author: Jim Buntin

BACKGROUND

Data Response #62 (Set 1C) stated that noise modeling results would be included in the AFC Supplement. The AFC Supplement dated March 15, 2002 indicates that noise levels due to plant operation will be reduced as compared to those described by the AFC although the noise analysis was not included.

DATA REQUEST

218. Please provide the revised noise analysis that reflects the revised noise projections described by the AFC Supplement. Include the specific analysis assumptions (i.e., the type and number of each noise generating equipment assumed in operation at the plant), state the assumed electric generating capacity (e.g., 500 MW or 1000 MW), and describe the factors that necessitated the revisions.

BACKGROUND

Discussions during the site visit suggested that the mobile home on Clay East Road might be moved. If this were to occur, the noise analysis should be revised to describe potential impacts at the more distant residences.

DATA REQUEST

219. Please state whether the mobile home on Clay East Road will be relocated,. If the mobile home will be relocated, please identify when and where it will be located to and under what circumstances.
220. If the mobile home is to be relocated, please revise the noise analysis to address compliance with the noise standards at the subsequent nearest residences.

COSUMNES POWER PLANT (01-AFC-19)
DATA REQUESTS, SET 3

Technical Area: Project Description

Author: Kristy Chew

BACKGROUND

Data Response 69 (Set 1A) states that two natural gas compressor stations will be required for the second 500 MW of the proposed project (Phase 2), one at 27700B County Road 29 in Winters and one near the Carson Ice-Gen Plant in Elk Grove.

DATA REQUEST

- 221. Please provide a supplement to the AFC that fully describes the setting and assesses the impacts of the natural gas compressor stations for all technical areas that may be affected.
- 222. Please provide a list of property owners and mailing addresses within 1000-feet of the proposed compressor station locations.

BACKGROUND

Conversations with staff indicate that the natural gas pipeline alignment has been altered from what is stated in the application for certification to avoid biological resources.

DATA REQUEST

- 223. Please provide revised maps of the alignment for those areas where the alignment has been altered from what is presented in the AFC.

COSUMNES POWER PLANT (01-AFC-19)
DATA REQUESTS, SET 3

Technical Area: Traffic and Transportation

Author: James Fore

BACKGROUND

The California Department of Transportation indicated that State Route 104 from State Route 99 to Clay East Road is not adequately built to serve a large number of heavy weighted trucks without substructure upgrades (letter docketed on February 27, 2002).

The Herald Fire Protection District commented in a letter docketed December 7, 2001, that Clay East Road was usable only because of the current minimum traffic volume. The District is concerned that the increase in traffic volume caused by the CPP project construction traffic, (i.e., trips associated with the daily workforce and heavy-weighted trucks), would lead to significant deterioration of Clay East Road.

Page 8.10-12 of the AFC states that SMUD is considering the use of an existing rail spur that enters the Rancho Seco Plant for the shipment of heavy equipment.

DATA REQUEST

- 224. Please indicate the routes to be used for the heavy-weighted trucks and the maximum weight expected for the loads.
- 225. Please indicate how the applicant determined that the roadways and their associated substructures were sufficient to handle the increased construction traffic without having a significant negative affect on the roadway.
- 226. Has SMUD determined whether the existing Rancho Seco rail spur will be used for the delivery of heavy equipment? If yes, then please describe under which circumstances the spur would be used, how often it would be used.
- 227. Please indicate the precautions and mitigation measures the applicant would put in place to minimize roadway damage from heavy loads.

BACKGROUND

The local school districts, Arcohe Union Elementary School and Galt Joint Union High School Districts, have school bus routes that use both Twin Cities and Clay East Roads. In the November 13, 2001 data adequacy supplement the applicant indicated that both Clay East Road and Twin Cities Road have little or no shoulders. This has caused concern about the safety of school students being picked up and let off during periods of heavy construction traffic.

DATA REQUEST

- 228. Please indicate the mitigation measures that will be taken by the CPP to ensure that construction traffic will not reduce student safety.

Technical Area: Waste Management

Author: Alvin Greenberg, Ph.D.

BACKGROUND

Recent correspondence (see attached letter from February 5, 2002) and conversations with the Department of Toxic Substances Control (DTSC) indicate a Phase I Environmental Site Assessment (ESA) for the entire length of the natural gas pipeline alignment is required.

DATA REQUEST

229. Please provide a complete Phase I ESA for the 26-mile gas pipeline corridor and natural gas compressor stations according to ASTM 2000 guidelines.

BACKGROUND

The Phase I Environmental Site Assessment for the power plant site and construction laydown areas prepared by Taylor, Hooper & Wiley and submitted by SMUD as part of Data Response Set 2C (March 19, 2002) is not complete. No conclusion or recommendation was provided nor was an adequate discussion provided concerning the potential for impacts that the construction or operation of Rancho Seco Nuclear Power Plant could have had on the 30-acre site or laydown area. DTSC, along with Energy Commission staff, has concerns that waste materials, including radioactive wastes, may have migrated onto the site or laydown area.

DTSC and the Energy Commission understand that the Nuclear Regulatory Commission (NRC) is responsible for licensing nuclear facilities and maintains regulatory responsibility for activities conducted within the licensed areas. The Department of Health Services (DHS) holds jurisdiction for radioactive waste/material activities outside of the NRC's license domain.

DATA REQUEST

230. Please prepare and implement a Sampling and Analysis Plan for the site and laydown areas. This plan should also include a survey and results for the presence of radioactive materials. Please submit this Plan along with an Implementation Schedule to Energy Commission staff and DTSC for review and approval prior to implementation.
231. Please provide a schedule for the decommissioning of the Rancho Seco Nuclear Power Plant. Please also include what steps will be taken to prevent migration of any hazardous wastes, including radioactive wastes, from Rancho Seco to the proposed Cosumnes Power Plant site and laydown areas. Also list the number of truck trips removing hazardous or radioactive wastes from Rancho Seco if these trips will occur during CPP site preparation and operations.
232. Please provide a description and area map of Rancho Seco's Nuclear Regulatory Commission licensed boundaries and buffer zones.

Technical Area: Water and Soil Resources

Author: Philip Lowe, P.E., Greg Peterson, P.E., and Richard Latteri

These Water and Soil Resources Data Requests are a follow-up to the data response sets and AFC supplement listed below:

Set 1A, dated January 9, 2002;
Set 1B, dated January 18, 2002;
Set 1C, dated February 4, 2002;
Set 1D, dated February 15, 2002;
Set 1G, dated March 19, 2002; and
AFC Supplement A, dated March 15, 2002

Follow-up data requests for Data Response Set 1E, Power Plant Cooling Analysis, are being deferred until the analysis of the data can be completed. If follow-up is deemed necessary, another set of data requests will be submitted. In order to reduce the number of future data requests, data responses provided by the applicant need to have sufficient detail to validate the bases, assumptions, quantities, unit processes, and cost components therein.

BACKGROUND

As part of the National Pollutant Discharge Elimination System (NPDES) permitting process, a Report of Waste Discharge (ROWD) is necessary to evaluate and support the proposed wastewater treatment and management for the CPP. The Central Valley Regional Water Quality Control Board (CVRWQCB) in their letter to Mr. Colin Taylor dated February 25, 2002, deemed the initial NPDES application as incomplete requiring additional information including a revised ROWD.

DATA REQUEST

- 233. Please provide a schedule for submittal of a complete NPDES application to the CVRWQCB.
- 234. Please provide a copy of the complete NPDES application including written verification from the CVRWQCB that all additional data it needs has been received.
- 235. Please provide a copy of the accepted ROWD that includes discharge characteristics for both the Folsom South Canal as the primary water source, Rancho Seco Reservoir as the backup source, and all receiving water characteristics.

BACKGROUND

Data Requests 123 and 124 requested background information on the historic Rancho Seco Plant (RSP) discharge and downstream receiving waters. The response in Set 1A provided summary information on RSP "wastewater" discharge flow but said that no information was readily available for Hadselville Creek, Laguna Creek, or the Cosumnes

River. Data Response 123 in Set 1A did not provide hydrologic or water quality data for Hadselville Creek, Laguna Creek, or the Cosumnes River.

Data Response Table W&SR-124 provided in Set 1A lists the discharge rates from RSP to Clay Creek but provides no water quality data for Clay Creek. The response that “November to March stormwater runoff flows will probably make the unnamed Clay Creek tributary flow slightly higher” is not an adequate response.

At the January 23, 2002, data response workshop, the applicant stated that supplemental dilution water will come from the Folsom-South Canal but the quantity and point of discharge to Clay Creek was not known. Staff’s February 15, 2002, site visit showed that flow charts at the Folsom-South Canal Pump Station indicated greater water use than reported in Data Response 123 Table W&SR-123.

DATA REQUEST

236. Please provide a detailed discussion of the relative contribution of CPP discharge on Clay Creek, Hadselville Creek, and the Cosumnes River by season including the effect on water quality for those waterways. Include in this discussion, information on daily and annual constituent loading to those waterways.
237. Please provide representative flow records for the Folsom-South Canal Pump Station and all other applicable flow metering points within the RSP.

BACKGROUND

Data Request 151 requested historic annual consumption by month and yearly total of U.S Bureau of Reclamation/Central Valley Project (USBR/CVP) water used for RSP operation from date of commercial operation until the year 2000. Data Response 151 in Set 1C provides Table W&SR-151 which shows that the average water delivered by the USBR to the Rancho Seco Pump Station averaged 19.5 cfs from 1999 to 2001, or 60% greater than the 12.26 cfs average reported RSP discharge shown in Table W&SR-124.

DATA REQUEST

238. Please explain the discrepancy between the 19.5 cfs and 12.26 cfs values.
239. What will be the discharge requirements for RSP after all fuel rods are placed in dry storage and when is this expected to occur?

BACKGROUND

Data Response 155 in Set 1A indicates that the condenser will be cleaned as need, potentially as often as weekly, and that tube cleaning will include both plastic and metal scrapers and brushes forced through the tubes with a combination of plant service water and compressed air. The tube sheet will be cleaned using either pressurized plant service water or by hand with a pick or rake. The cleaning water will be returned to the cooling tower basin.

The CVRWQCB in their January 29, 2002, letter indicated that Zero Liquid Discharge (ZLD) is considered best practicable treatment (BPT) regardless of the water source. Since condenser cleaning solutions are a common source of elevated copper, mercury and other metals, how those constituents are controlled in the cooling loop and discarded in a ZLD system needs to be discussed.

DATA REQUEST

240. Based on CVRWQCB's determination that ZLD is BPT, please provide the chemical quality of the resulting salt cake and its ultimate disposal method.

BACKGROUND

On November 12, 2001, a Well Drillers Inspection Request was provided to the applicant by facsimile. To date, no well data within the vicinity of the CPP site has been provided.

DATA REQUEST

241. Please provide at least 10 representative well logs within a 2 mile radius of CPP including estimated yield, quality, and water level.
242. Figure 8.15-2 is too generalized and does not provide adequate detail. Please provide geomorphic strata and groundwater depths within the hydrologic area; specifically at the plant site.

BACKGROUND

As originally proposed by the applicant in the AFC, the CPP site configuration will require alteration to the upper reaches of Clay Creek. In the revised general site arrangement contained in AFC Supplement A, the size and shape of the CPP footprint remains the same with the same streambed alterations to the upper reaches of Clay Creek.

As with the originally proposed site arrangement, the revised arrangement as shown in Figure 2.2-1R and Figure 8.14-4R locates the septic leach field adjacent to and up slope of the creek and hazardous materials and or potential contaminant storage areas adjacent to the creek. All of those facilities have the potential to significantly degrade water quality in the event of an embankment failure or as a result of a spill. No information has been provided discussing alternate site configurations that may avoid possible impacts.

DATA REQUEST

243. Please provide an analysis of alternate site configurations that fully discusses and compares the reduced risks and efficiencies gained of the currently proposed configuration as compared to configurations that:
- place all potential contaminant sources (septic system, chemical storage, treatment systems, etc.) at the furthestmost point from the creek;

- place all potential contaminant sources to the furthestmost point from the creek and layout the site so as not to require any alteration or filling of the existing drainages and upper reaches of the creek; and
- place all potential contaminant sources at the furthestmost point from the creek, does not require any alteration or filling of the existing drainages and upper reaches of the creek, and with a 100 foot setback from the edge of the creek to the toe of the site.

BACKGROUND

Data Requests 118, 119, 120, 121, and 122 requested a draft Storm Water Pollution Prevention Plan (SWPPP) and draft erosion control and sedimentation plan. The responses provided in Set 1C and AFC Supplement A included a preliminary draft SWPPP and a new site plan. The preliminary draft SWPPP is inadequate and does not apply to the new site configuration as noted in Data Response 118, which states that the draft SWPPP is to be revised once the new grading plan is received.

Data Requests 133 and 134 requested hydrologic calculations and a hydrologic reservoir routing analysis for the proposed stormwater detention basin. Data Responses 133 and 134 in Set 1A and Set 1B provided rough hydrologic calculations and a rough estimate of the volume required for the stormwater detention basin but no information was provided on the proposed storage/outflow characteristics of the basin. Hydrologic reservoir routing is typically based on an inflow hydrograph, the basin geometry, and outflow characteristics. No hydrologic reservoir routing was provided.

Data Request 136 requested analysis of other return periods, plus a conceptual spillway design. Data Response 136 in Set 1C states that “the Applicant will attempt to move this item up in the design queue.” To date, no information has been provided for Data Request 136.

Data Request 138 requested proposed and existing contours on grading plans to include drainage features and the laydown areas. The figure should distinguish those areas that will be routed to the blow-down treatment systems, the stormwater detention basin, and other areas as initially requested. At the meeting on January 9, 2002, the applicant committed to providing a response to this request. Areas to be routed to the blow-down treatment systems are not yet described.

DATA REQUEST

244. Please provide the revised draft plans (grading, erosion control & sedimentation, and SWPPP) as initially requested in Data Requests 118 through 122.
245. Please provide a conceptual stage/storage/outflow relationship for the proposed stormwater detention basin with a hydrologic reservoir routing based on an inflow hydrograph, the detention basin geometry, and stage/storage/outflow characteristics.

246. Please provide a stormwater management design that complies with all requirements of the CVRWQCB and Sacramento County. If the original design exceeds those requirements, please provide a detailed discussion of the exceedences.

BACKGROUND

Data Requests 143, 144, 145, and 146 requested hydrologic and hydraulic documentation of the flood conditions that would be experienced by the CPP site.

Data Response 143 through 146 in Set 1G provided a hydrologic and hydraulic analysis that is adequate for existing conditions on Clay Creek but no information is provided for tributaries to Clay Creek, which are to be diverted by the CPP site. Some additional clarification is needed. Specifically, the Clay Creek 100-Year Discharge Analysis Report states that a portion of the CPP site is within the Clay Creek floodplain but no map showing the location of this flood-prone area is provided.

With regard to tributary flows, the site plan shows two tributaries that would be diverted by the project. Since the entire flow for those tributaries will be diverted, it is not necessary to map the 100-year floodplain through the property for those tributaries. However, the environmental evaluation should include an estimate of the magnitude of those discharges and a preliminary description of the collecting structures and diversion pipes in order to assess whether these flows can safely be collected and diverted without overflowing into portions of the project site not designed to accept this flow.

The report states that 100-year flow velocities adjacent to the proposed banks of the facility are low, and with good engineering and erosion control (vegetation), the slopes surrounding the facility can adequately protect the facility from being eroded, undermined or over-run. However, no information is provided on post-development flow velocities at locations where the proposed facility (which includes the proposed stormwater detention basin) would encroach into the floodplain. Without post-development flow velocity information it is difficult to determine whether vegetative treatment of these slopes will be adequate as erosion control or whether non-erosive armoring (such as riprap) may be necessary.

The report further states that the project will be elevated by grading to be above the 100-year flood elevation of Clay Creek. Although this is a commonly-accepted method of flood protection, in this case it also involves filling and diverting one of the tributaries of Clay Creek which results in impacts to waters under the jurisdiction of the U.S. Army Corps of Engineers and the California Department of Fish and Game. The Corps of Engineers typically requires that impacts to waters of the U.S. be avoided where possible. Consideration should be given to modifying the site to avoid encroachment into the stream channel.

DATA REQUEST

247. Please provide a map showing the location of the 100-year floodplain of Clay Creek which includes the water surface elevations on and adjacent to the CPP site.
248. Please provide 100-year discharges for the Clay Creek tributaries that will be diverted by the CPP (Waanen and Crippen method is acceptable).
249. Please provide conceptual descriptions and hydraulic capacities of the catchment and conveyance structures for the tributary flow to be diverted. The descriptions should be sufficient to assess whether capturing and diverting this flow as shown on the site plan is practical.
250. Please provide post-development flow velocities adjacent to structures proposed to be within the 100-year floodplain including the detention basin if applicable. Please provide the rationale for determining whether these flow velocities are low enough to allow vegetative erosion protection, or whether a non-erodible lining is required.

BACKGROUND

Data Request 147 requested mapping of riparian areas affected by the pipeline construction. Data Request 148 requested evidence of consultation with the U.S. Army Corps of Engineers, CVRWQCB, and California Department of Fish and Game regarding the proposed riparian disturbance. Evidence of consultation should include applications for a 404 Permit, 401 Water Quality Certification, and a California Fish and Game Code 1601 Streambed Alteration Agreement. Data Responses 147 and 148 in Set 1A and Set 1D stated that mapping and 401, 404 and 1601 permit applications are being prepared.

DATA REQUEST

251. Please provide the mapping and completed applications referred to in the responses to Data Requests 147 and 148.

BACKGROUND

On March 15, 2002, the Sacramento Regional County Sanitation District (SRCSD) responded to Mr. Colin Taylor's February 25, 2002, letter requesting reclaimed water information from the Sacramento Regional Wastewater Treatment Plant (SRWTP). In their letter, SRCSD states that by this summer they expect to have operational a 5 MGD recycled water facility that can be expanded to 10 MGD or larger if demand warrants.

SRCSD further states that this is a unique opportunity to construct a recycled water pipeline that can be installed in parallel to the SMUD gas line resulting in considerable savings in pipeline installation, right of way and other costs by co-constructing the natural gas and recycled water lines. In order for SRCSD to fully evaluate the shared

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cost of a parallel pipeline, SRCSD requested additional information from SMUD be provided by April 15, 2002.

DATA REQUEST

252. Please provide a copy of SMUD's responses to the additional information requested by SRCSD in their letter of March 15, 2002. For the CPP, please provide the following data:
- proposed gas pipeline alignment drawings
 - cost of gas line excavation, pipe cost, installation and any other relevant costs
 - right of way costs
 - zero discharge facility capital cost
 - zero discharge facility O&M cost
253. For the parallel recycled water pipeline, please provide those costs above that of the SMUD pipeline which consist of:
- cost of recycled water pipeline excavation, pipe cost, installation labor, and any other relevant costs
 - right of way cost
 - zero discharge facility capital cost
 - zero discharge facility O&M cost